Subject Matter Expert (SME) Knowledge Acquisition Tools

Several tools are currently under development which will enable SMEs to more easily create and extend knowledge base systems. The KRAKEN program is developing technology that enables distributed teams of subject matter experts to enter and modify knowledge directly and easily, without the need for specialized training in knowledge representation, acquisition and manipulation. The SKSI program is developing methods of integrating heterogeneous external knowledge sources into knowledge base reasoning systems which is essential in supporting command decision making. The Advanced Research Cyc effort is aimed at identifying methods to systematically break down barriers that exist to broad R&D community usage of the Cyc Knowledge Base (KB) and inference technology, which represents an under-utilized resource. The Disciple program has been used extensively to perform Center of Gravity (COG) analysis. Current research involves analyzing vulnerabilities in COGs and integrating KBs developed independently by SMEs.

Prior Knowledge

Upper Ontology

Core Theories

Domain Expert

Domain-Specific Theories

Facts